

Work Order ID 81164***81164***

Page 1

Friday, March 09, 2012 2:30:36 PM

Item ID: D3238-21

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: Plate

Start Date: 3/9/2012 Start Qty: 4.00

4

Cust Item ID:

Required Date: 3/12/2012 Req'd Qty: 4.00

4

Customer:

Reference:

Approvals:

Process Plan: *R*Date: *12-3-9*

Tooling:

Date:

Run Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D3238	Rev C								

100

0.00

100

FLOW WATER JET

Waterjet

Memo

0.00

FLOW CNC Waterjet

W/O'S FOR D3238-23-25 MUST BE ISSUED AND RAN AT THE SAME TIME

*12-3-9**(12)*

1-Cut as per Dwg D3238

Dwg Rev: *C*Prog Rev: *C*

2-Deburr if necessary

*****USE D3238 BLANK CUTTING FILE*****

110

0.00

110

CONVENTIONAL MILLING MACHINE

Mill Conv

Memo

0.00

Conventional Milling Machine

Machine Serration on Sheet using DT8934 PLATE

*u/45**12-3-9*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 81164

Friday, March 09, 2012 2:30:36 PM

81164

Page 2

Item ID: D3238-21

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: Plate

Start Date: 3/9/2012 Start Qty: 4.00

4

Cust Item ID:

Required Date: 3/12/2012 Req'd Qty: 4.00

4

Customer:

Reference:

Run Start

NR1

Approvals:

Process Plan:

Date:

Tooling:

Date:

Stop

NR2

QC:

Date:

SPC (Y/N):

Date:

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

120

QC2- Inspect parts off machine FAI/FAIB

0.00

120

QC

Memo

0.00

Quality Control

130

FLOW WATER JET

0.00

130

Waterjet

Memo

0.00

FLOW CNC Waterjet

1-Cut as per Dwg D3238 Dwg Rev: C Prog Rev: C 2-
Deburr if necessary ***Use cutting file D3238-21-23-25*****

140

QC2- Inspect parts off machine FAI/FAIB

0.00

140

QC

Memo

0.00

Quality Control

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 81164

81164

Page 3

Friday, March 09, 2012 2:30:36 PM

Item ID: D3238-21 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Plate
 Start Date: 3/9/2012 Start Qty: 4.00 ***4*** Cust Item ID:
 Required Date: 3/12/2012 Req'd Qty: 4.00 ***4*** Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
150 *150* QC Quality Control	QC8- Inspect parts - second check Memo	0.00 0.00		8/26/12		+12			
160 *160* HandFinish Hand Finishing	Chemical Conversion Coat per QSI005 4.1 Memo	0.00 0.00							12 X 4 M-L 12/03/13
170 *170* QC Quality Control	QC3- Inspect Part Finish Memo	0.00 0.00							12 BL 12-3-13.

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 81164***81164***

Page 4

Friday, March 09, 2012 2:30:36 PM

Item ID: D3238-21

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: Plate

Start Date: 3/9/2012 Start Qty: 4.00

4

Cust Item ID:

Required Date: 3/12/2012 Req'd Qty: 4.00

4

Customer:

Reference:

Run Start

NR1

Approvals:

Process Plan: _____

Date: _____

Tooling: _____

Date: _____

Stop

NR2

QC: _____

Date: _____

SPC (Y/N): _____

Date: _____

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

180

Identify as per dwg & Stock Location

ST34.

0.00

180

Packaging

Memo

0.00

Packaging

(121)

SP 12-03-15

190

QC21- Final Inspection - Work Order Release

0.00

190

QC

Memo

0.00

Quality Control

12/3/15

12-03-15

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Friday, March 09, 2012 2:30:40 PM

Page 1

Work Order ID: 81164

81164

Parent Item: D3238-21

D3238-21

Parent Item Name: Plate

Start Date: 3/9/2012

Required Date: 3/12/2012

Start Qty: 4.00

Required Qty: 4.00

Comments: IPP Rev:A New Issue 07-01-26 JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

M2024T3S.080

Purchased

No

100

sf

127.3000

0.024

0.101053

M2024T3S 080

AB12-3-9

2024-T3 .080 sheet

Location

Loc Qty

Loc Code

MAT022

127.3

105411

6

109424

4

110347

0.5

112331

3

113796

5

114025

10.7

116604

5.8

117392

19.1

118180

46

119117

27.2

119117

(12)

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

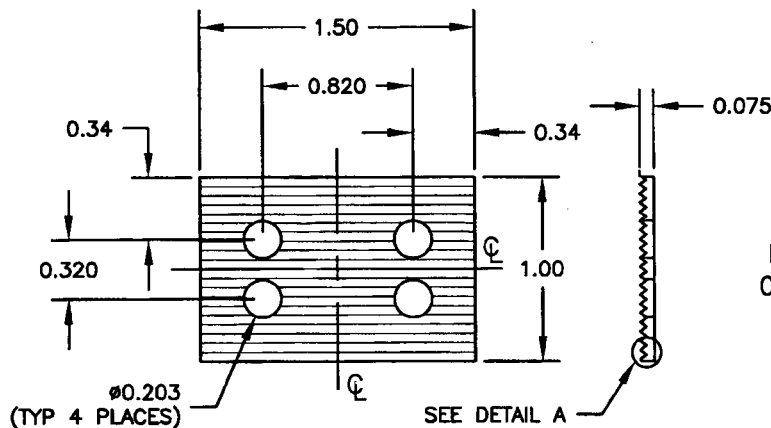
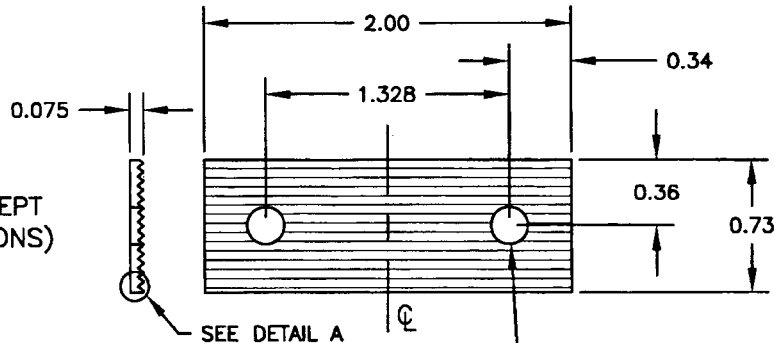
NOTE: Date & initial all entries

DART

DESIGN #	DRAWN BY CB	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED LE	APPROVED #	DRAWING NO. D3238	REV. C SHEET 1 OF 3
DATE 07.02.19	TITLE PLATE		SCALE 1:1
A	03.11.25	NEW ISSUE	
B	07.01.17	ADD -21/-23/-25/-31/-33/-35; CHANGE -11/-13/-15 TO 6061-T6	
C	07.02.19	ADD 5052-H32 OPTION	

RELEASED

07.02.20

D3238-1 PLATE (SHOWN)D3238-11 PLATE (SAME, EXCEPT
0.020 THICK AND NO SERRATIONS)**D3238-3 PLATE (SHOWN)**D3238-13 PLATE (SAME, EXCEPT
0.020 THICK AND NO SERRATIONS)SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 81164

10/2-3-9

NOTES:

1) MATERIAL -1/-3/-5/-21/-23/-25 PLATE:

ALUMINUM 2024-T3 SHEET PER QQ-A-250/4 OR AMS 4037
(REF DART SPEC M2024T3S)

-11/-13/-15/-31/-33/-35 PLATE:

ALUMINUM 6061-T6/-T62 SHEET, 0.020 THICK, PER QQ-A-250/11 OR
AMS 4025 OR AMS 4027 (REF DART SPEC M6061T6S.020)
ORALUMINUM 5052-H32 SHEET, 0.020 THICK, PER QQ-A-250/8 OR
AMS 4016 (REF DART SPEC M5052H32S.020)

2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1

3) BREAK ALL SHARP EDGES 0.005 TO 0.010

4) ALL DIMENSIONS ARE IN INCHES

5) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

6) SEE SHEET 3 FOR DETAIL A

7) PARTS ARE SYMMETRIC ABOUT ϕ

Copyright © 2003 by DART AEROSPACE LTD

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED
OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

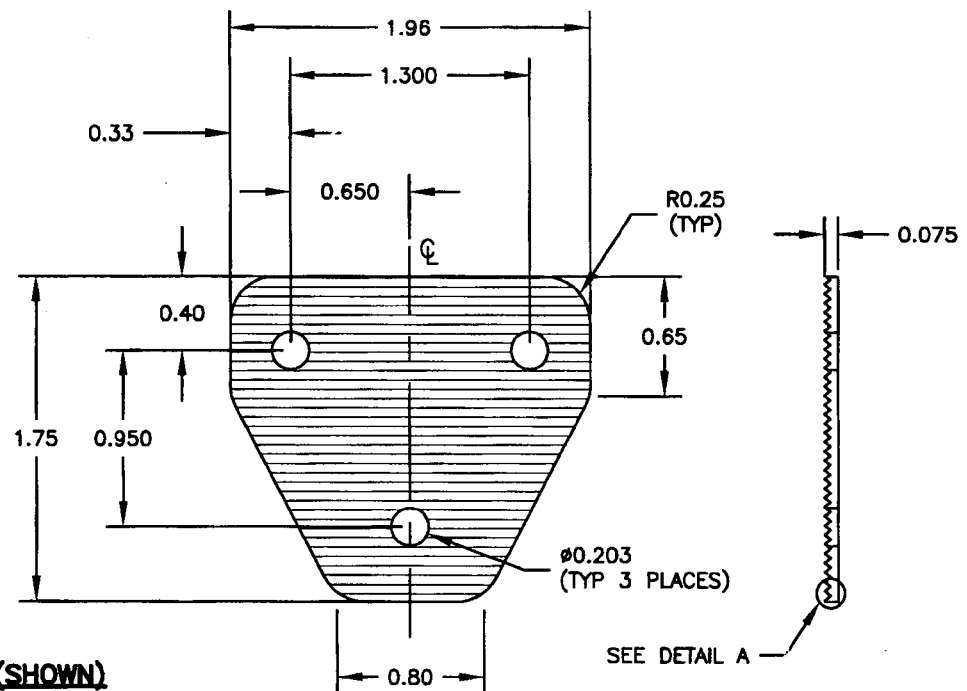
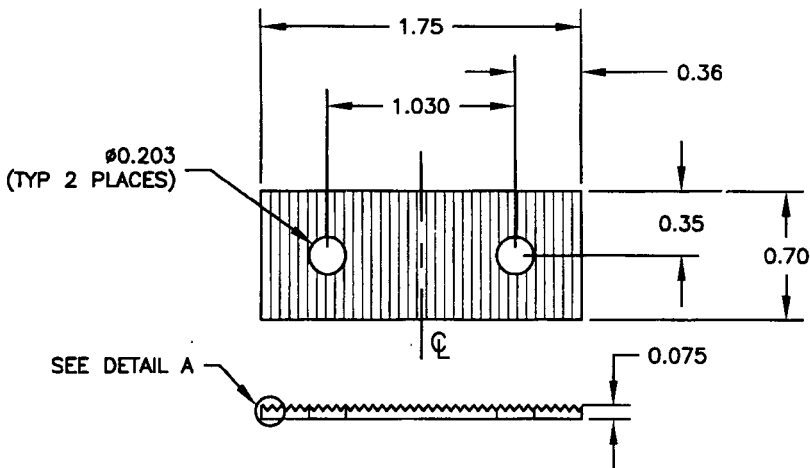
Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART

DESIGN #	DRAWN BY CB	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED LE	APPROVED #	DRAWING NO. D3238	REV. C SHEET 2 OF 3
DATE 07.02.19	TITLE PLATE		SCALE 1:1



Copyright © 2003 by DART AEROSPACE LTD

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

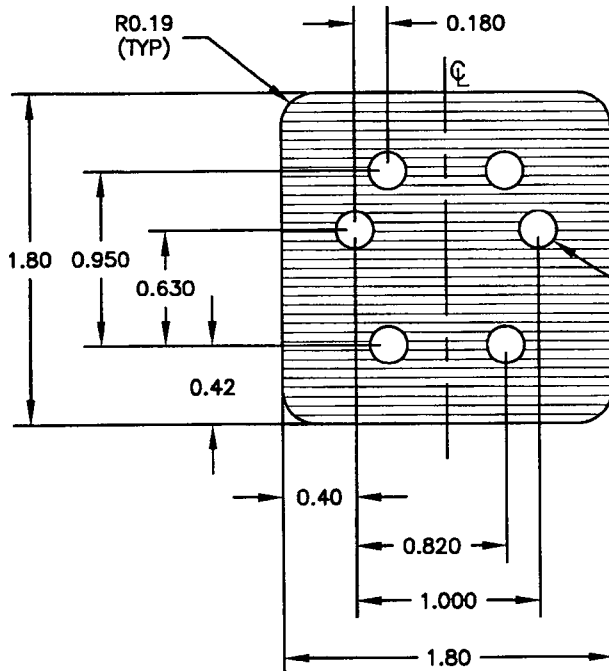
Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

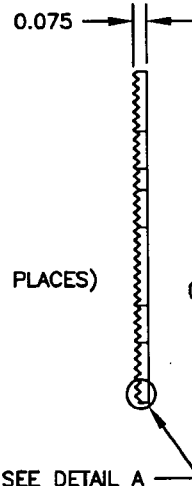
NOTE: Date & initial all entries



DESIGN #	DRAWN BY CB	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED LE	APPROVED #	DRAWING NO. D3238	REV. C SHEET 3 OF 3
DATE 07.02.19	TITLE PLATE		SCALE 1:1



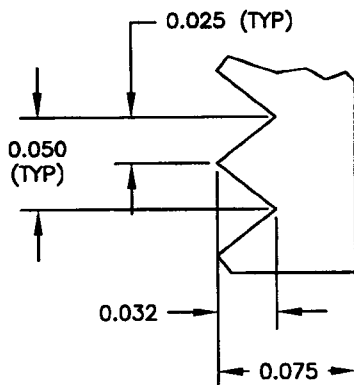
Ø0.203
(TYP 6 PLACES)



8/11/64
RELEASED

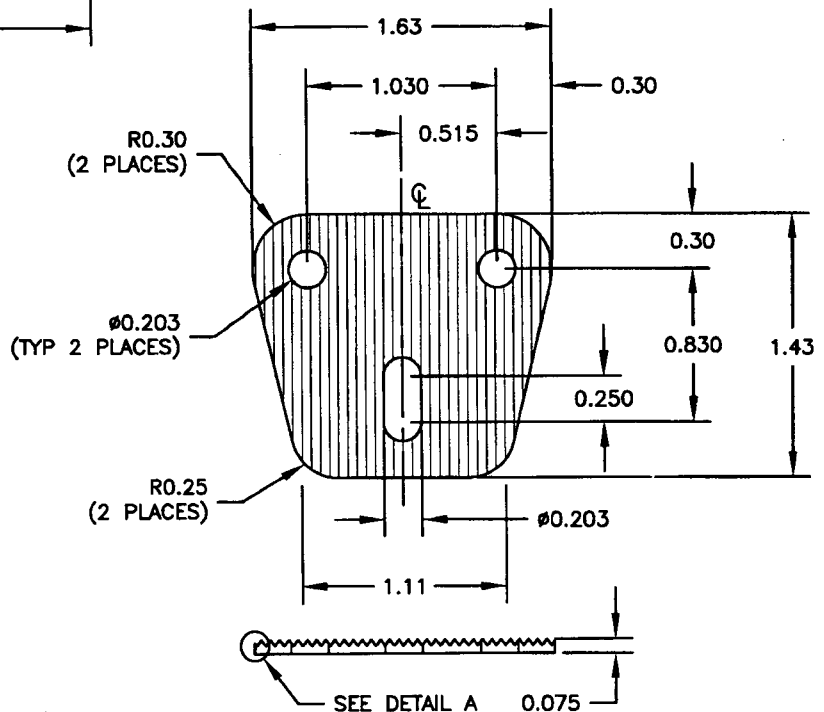
07.02.20 #

D3238-23 PLATE (SHOWN)
D3238-33 PLATE (SAME, EXCEPT
0.020 THICK AND NO SERRATIONS)



DETAIL A

RIDGE DETAIL (VIEW MAY BE ROTATED)
SCALE 10:1



D3238-25 PLATE (SHOWN)

D3238-35 PLATE (SAME, EXCEPT
0.020 THICK AND NO SERRATIONS)

Copyright © 2003 by DART AEROSPACE LTD

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries